UNITED STATES PATENT AND TRADEMARK OFFICE

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ART UNIT	PAPER NUMBER
2126	7

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No	Applicant(s)
Office Action Summary	09/822,748	GARY, SCOTT PAUL
	Examiner	Art Unit
	Edward Bross	2126

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>04 September 2001</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-45</u> is/are pending in the application.

　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-45</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　a)☐ All b)☐ Some * c)☐ None of:

　　1.☐ Certified copies of the priority documents have been received.

　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
　　　application from the International Bureau (PCT Rule 17.2(a)).

　* See the attached detailed Office action for a list of the certified copies not received.

13)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application)
since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.
37 CFR 1.78.

　a)☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific
reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)　　　　　4)☐ Interview Summary (PTO-413) Paper No(s). _____ .

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)　5)☐ Notice of Informal Patent Application (PTO-152)

3)☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>5</u>.　　6)☐ Other:

DETAILED ACTION

1.   Claims 1-45 are pending in the application.

Specification

2.   The disclosure is objected to because of the following informalities: The disclosure lacks

a section titled "Brief Summary of the Invention".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4.   Claims 1, 2, 16, 27, 31-33, 35 and 36 are rejected under 35 U.S.C. 102(b) as being

anticipated by IBM - Technical Disclosure Bulletin, June 1, 1992, "Remote Procedure Calls for

an Attached Processor" (NB9206237).

5.   As to claim 1, IBM-TDB teaches the invention as claimed including a method of using a

first data processor (p. 1 line 2, "main processor") to manage resources of a second data

processor (p. 1 line 2, "an attached processor") which performs data processing functions that

support user applications (p. 1 line 3), comprising:

the first data processor making a remote procedure call to the second data processor to

invoke on the second data processor a program that supports management of data processing

resources of the second data processor (p. 1 lines 1-2 and 13-16); and

the second data processor executing the program in response to the remote procedure call

(p. 1 lines 24-28).

6.   As to claim 2, IBM-TDB teaches the invention as claimed including the step of making a

remote procedure call includes the first data processor providing a remote procedure call to the

second data processor (p. 1 lines 15-16), and wherein said executing step includes the second

data processor decoding the remote procedure call command and calling the program (p. 1 lines

24-28).

As to claims 16 and 27, they are rejected for the same reasons as claim 1 above.

7.   As to claim 31, IBM-TDB teaches a man/machine interface coupled to said first data

processor for permitting communications between said first data processor and a user (e.g. p. 1

lines 13-16, the keyboard and monitor typically attached to the computer system described

throughout).

8.   As to claim 32, IBM-TDB teaches the man/machine interface includes one of a tactile

interface (e.g. the keyboard) and a visual interface (e.g. the monitor).

9.   As to claim 33, IBM-TDB teaches the communication path extends through a data

network (as in the typical use of RPC p. 1 lines 6-7).

10.   As to claim 35, IBM-TDB teaches the first and second data processors are located

remotely from one another (p. 1 line 2 as implied by the typical use of RPC in a networked

environment p. 1 lines 6-7).

11.   As to claim 36, IBM-TDB teaches that the man/machine interface coupled to said first

data processor for permitting communications between said first data processor and a user (e.g.

the keyboard and monitor typically attached to the computer system described throughout).

Claim Rejections - 35 USC § 103

12.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13.   Claims 3, 4, 12, 14, 15, 19, 26, 37, 44 and 45 are rejected under U.S.C. 103(a) as being unpatentable over IBM-TDB "Remote Procedure Calls for an Attached Processor" (NB9206237) as applied to claims 1, 16, and 27 above, in view of Weiser (5,786,819).

14.   As to claims 3, 19, and 44, IBM-TDB does not disclose the executing step includes the program permitting the first data processor to write to a memory space associated with the second data processor. Weiser discloses the executing step includes the program permitting the first data processor to write to a memory space associated with the second data processor (col. 8 lines 65-67).

15.   It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of IBM-TDB and Weiser because Weiser's step of writing to the memory space of the second processor would provide low overhead data transfer to IBM-TDB's system.

16.   As to claims 4 and 45, Weiser discloses the first data processor downloading a further program to said memory space in conjunction with operation of the first-mentioned program (col. 9 lines 1-9).

17.   As to claims 12, 26, and 37, IBM-TDB does not disclose said executing step includes the

program permitting the first data processor to read from a memory space associated with the

second data processor. Weiser discloses said executing step includes the program permitting the

first data processor to read from a memory space associated with the second data processor (col.

8 lines 65-67).

18.   As to claim 14, IBM-TDB does not disclose providing the program in a memory space of

the second data processor. Weiser discloses providing the program in a memory space of the

second data processor (col. 9 lines 1-9).

19.   As to claim 15, IBM-TDB does not disclose said providing step includes making a

remote procedure call to the second data process to invoke on the second data processor a further

program and, in response to the remote procedure call, the second data processor executing the

further program to download the first-mentioned program into the memory space of the second

data processor. Weiser discloses said providing step includes making a remote procedure call to

the second data process to invoke on the second data processor a further program and, in

response to the remote procedure call, the second data processor executing the further program to

download the first-mentioned program into the memory space of the second data processor (col.

9 lines 1-9 where the procedure to be executed is called via RPC/RMI).

20.   Claims 5, 6, 20, 21, 38, and 39 are rejected under U.S.C. 103(a) as being unpatentable

over IBM-TDB "Remote Procedure Calls for an Attached Processor" (NB9206237) as applied to

claims 1, 16, and 27 above, in view of Engdahl (5,452,420).

21.   As to claims 5, 20, and 38, IBM-TDB does not disclose said executing step includes the

program providing information indicative of a capability of the second data processor. Engdahl

discloses said executing step includes the program providing information indicative of a

capability of the second data processor (col. 29 lines 3-7).

22.   It would have been obvious to one of ordinary skill in the art at the time the invention

was made to combine the teachings of IBM-TDB and Engdahl because Engdahl's capability

information would improve the decision making of IBM-TDB's system by allowing it to know

exactly the capability of the processor in the system.

23.   As to claims 6, 21, and 39, Engdahl discloses the capability information includes

information indicative of a native character size of the second data processor (col. 29 lines 3-7).

24.   Claims 7, 22, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over

IBM-TDB "Remote Procedure Calls for an Attached Processor" (NB9206237) in view of

Engdahl (5,452,420) as applied to claims 1, 5, 16, 20, 27, and 38 above, and further in view of

Menezes (5,621,894).

25.   As to claims 7, 22, and 41, IBM-TDB and Engdahl do not disclose the capability

information includes information indicative of an operating system of the second data processor.

Menezes discloses said capability information includes information indicative of an operating

system of the second data processor (col. 3 lines 1-18).

26.   It would have been obvious to one of ordinary skill in the art at the time the invention

was made to combine the teachings of IDM-TDB, Engdahl, and Menezes because Menezes's

information about the 2nd data processor's operating system would improve IBM-TDB's and

Engdahl's system by having allowing it to know what type of OS is running on the 2nd data

processor.

27.   Claims 8, 23, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over

IBM-TDB "Remote Procedure Calls for an Attached Processor" (NB9206237) in view of

Engdahl (5,452,420) as applied to claims 1, 5, 16, 20, 27, and 38 above, and further in view of

Jayakumar (5,904,733).

28.   As to claims 8, 23, 40 IBM-TDB and Engdahl do not disclose said capability

information includes information that identifies the second data processor. Jayakumar discloses

said capability information includes information that identifies the second data processor (col. 6

lines 3-6).

29.   It would have been obvious to one of ordinary skill in the art at the time the invention

was made to combine the teachings of IBM-TDB, Engdahl, and Jayakumar because being able to

uniquely identify processors would allow the 1st processor to communicate with multiple 2nd

processors.

30.   Claims 9, 24, and 42 are reject under U.S.C. 103(a) as being unpatentable over IBM-TDB

"Remote Procedure Calls for an Attached Processor" (NB9206237) as applied to claims 1, 16,

and 27 above, in view of Brady (5,724,418).

31.   As to claims 9, 24, and 42, IBM-TDB does not disclose the executing step includes the

program activating a desired communication protocol for communication between the first and

second data processors. Brady discloses the executing step includes the program activating a

desired communication protocol for communication between the first and second data processors

(col. 7 line 17–23).

32.   It would have been obvious to one of ordinary skill in the art at the time the invention

was made to combine the teachings of IBM-TDB and Brady because the communications

protocol of Brady would facilitate the exchange of data between the processors of IBM-TDB's

system..

33.   Claims 10, 11, 25, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over

IBM-TDB "Remote Procedure Calls for an Attached Processor" (NB9206237) as applied to

claims 1, 16, and 27 above, in view of Schreiber (5,787,281).

34.   As to claims 10, 25, and 43 does not disclose said executing step includes the program

changing the runtime priority associated with a data processing function of the second data

processor. Schreiber discloses said executing step includes the program changing the runtime

priority associated with a data processing function of the second data processor (col. 7 lines 1-5).

35.   It would have been obvious to one of ordinary skill in the art at the time the invention

was made to combine the teachings of IBM-TDB and Schreiber because the ability to change the

runtime priority would let the system of IDM-TDB manage distributed workloads and allow for

remote process management.

36.   As to claim 11, IBM-TDB does not disclose said changing step includes one of pausing

and resuming said data processing function. Schreiber discloses said changing step includes one

of pausing and resuming said data processing function (col. 7 lines 1-5).

37.   Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over IBM-TDB

"Remote Procedure Calls for an Attached Processor" (NB9206237) as applied to claim 1 above,

in view of Nozue (5,890,189).

38.   As to claim 13, IBM-TDB does not disclose said step of making a remote procedure call

includes the first data processor providing to the second data processor a remote procedure call

command which includes an address that points to a locations of the program in a memory space

of the second data processor. Nozue discloses said step of making a remote procedure call

includes the first data processor providing to the second data processor a remote procedure call

command which includes an address that points to a location of the program in a memory space

of the second data processor (col. 46 lines 27-36).

39.   It would have been obvious to one of ordinary skill in the art at the time the invention

was made to combine the teachings of IBM-TDB and Nozue because sending a pointer as taught

by Nozue would allow the system of IBM-TDB to call RPC functions by address instead of

function name reducing the size of the RPC message.

40.   Claims 17, 18, and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over

IBM-TDB "Remote Procedure Calls for an Attached Processor" (NB9206237) as applied to

claims 16 and 27 above, in view of Sitrick (5,728,960).

41.   As to claims 17 and 28, IBM-TDB does not disclose the apparatus provided as a single

integrated circuit chip. Sitrick discloses the apparatus as a single integrated circuit chip (col. 16

lines 63-65).

42.   It would have been obvious to one of ordinary skill in the art at the time the invention

was made to combine the teachings of IBM-TDB and Sitrick because packaging the IBM-TDB's

system as a single integrated circuit would lower it's power requirements and footprint.

43.   As to claim 18, IBM-TDB does not disclose said integrated circuit chip is one of a

microprocessor chip and a digital signal processor chip. Sitrick discloses said integrated circuit

chip is one of a microprocessor chip and a digital signal processor chip (col. 16 lines 63-65

44.   As to claim 29, it is rejected for the same reason as claim 36 above.

45.   As to claim 30, IBM-TDB does not disclose said first data processor is one of a microprocessor and a digital signal processor, and said second data processor is one of a microprocessor and a digital signal processor. Sitrick discloses said first data processor is one of a microprocessor and a digital signal processor, and said second data processor is one of a microprocessor and a digital signal processor (col. 16 lines 63-65).

46.   Claim 34 is rejected under U.S.C. 103(a) as being unpatentable over IBM-TDB "Remote Procedure Calls for an Attached Processor" (NB9206237).

47.   As to claim 34, it is rejected for the same reasons as claim 33 above, however it does not explicitly disclose the said data network is the Internet. It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the method taught by IBM-TDB where the data network that was used was the Internet because this is the largest data network and would allow robust communication between processing devices over large geographical area.

Conclusion

48.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See US Patent #5,446,901 Owicki et al. August 29, 1995.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward Bross whose telephone number is 305-8754. The examiner can normally be reached on Mon-Fri 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng An can be reached on 305-9678. The fax phone number for the organization where this application or proceeding is assigned is 308-5355.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 305-3900.

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